

Thematic Analysis of the Experience of Group Music Therapy for People with Chronic Quadriplegia

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Background: People living with quadriplegia are at risk for social isolation and depression. Research with other marginalized groups has indicated that music therapy can have a positive effect on mood and social interaction. **Objective:** To gather descriptions of participants' experience of 2 types of group music therapy – therapeutic singing or music appreciation and relaxation – and to determine commonalities and differences between participants' experience of these 2 methods. **Methods:** We interviewed 20 people with quadriplegia about their experience of participating in 12 weeks of therapeutic singing ($n = 10$) or music appreciation and relaxation ($n = 10$). These methods of group music therapy were the interventions tested in a previously reported randomized controlled trial. The interview data were subjected to an inductive thematic analysis. **Results:** Six main themes were generated from the interview data. Four of these were shared themes and indicated that both types of group music therapy had a positive effect on mood/mental state and physical state, encouraged social engagement, and reconnected participants with their music identity or relationship with music. In addition, the participants who participated in the singing groups found singing to be challenging and confronting, but experienced a general increase in motivation. **Conclusions:** Group music therapy was experienced as an enjoyable and accessible activity that reconnected participants with their own music. Participants frequently described positive shifts in mood and energy levels, and social interaction was stimulated both within and beyond the music therapy groups. **Key words:** accessibility, depression, engagement, mood, music therapy, social isolation, spinal cord injury

Quadriplegia results from spinal cord injury (SCI) at the cervical level. It has a sudden and catastrophic effect on physical function and has a significant impact on emotional and social well-being. An SCI can negatively affect self-concept, independence, ability to earn an income, ability to have children, and the likelihood of developing intimate relationships.¹ Several studies have reported that health-related quality of life for people with SCI is significantly lower than for the general population,¹⁻⁴ and depression is also commonly reported.^{5,6}

Research has shown that participation in music therapy can have a positive effect on mood, social interaction, and active involvement and cooperation in therapy.⁷⁻¹² In particular, group singing has been shown to have a positive effect on mood.^{13,14} Music therapy groups provide an opportunity for participation in a meaningful experience while at the same time offering peer support. Participants are given significant

opportunities to reconnect with their peers and the community and to regain the self-esteem and social skills that foster independence. The significant physical, psychological, and social benefits of participation in singing groups in the community have been increasingly reported.¹⁵⁻²²

Previous qualitative research has indicated that music therapy can be beneficial for people with SCI who are working through psychosocial and adjustment issues, can facilitate peer support, and can encourage emotional expression.^{23,24} Music therapy has also been reported to positively affect coping abilities and promote acceptance and development of new perspectives and new identity.²⁵ Participation in social musical activities, such as communal singing, provides an opportunity to meet and interact with like-minded people in a meaningful shared experience. This study was based on a neuroscience model of the use of music to influence nonmusical brain and behavior function. The singing intervention

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used Neurologic Music Therapy (NMT)²⁶ speech rehabilitation techniques (oral motor and respiratory exercises and therapeutic singing of familiar songs) as well as opportunities for vocal improvisation and karaoke-style singing using Sony's PlayStation SingStar.

Method

The qualitative data used in this thematic analysis were drawn from a larger mixed-methods study. We used a randomized controlled trial design to determine the effects of singing on respiratory function, respiratory muscle activation, voice, mood, and quality of life for people with quadriplegia.²⁷ This study included an embedded qualitative component²⁸ to explore the subjective experience of people with quadriplegia when participating in the music therapy groups.

The study was conducted at a large public hospital in Melbourne, Australia. For recruitment to the study, we used an existing statewide SCI database. People in this database with C4-C8 quadriplegia who were at least 1 year post injury and aged between 18 and 70 years ($n = 86$) were sent information regarding the study and invited to participate. The institutional human research ethics committee approved the project, and all participants gave informed consent prior to inclusion in the study. Twenty-four consenting participants were randomly assigned to attend 12 weeks of active music therapy (group singing using Neurologic Music Therapy techniques,²⁶ vocal and respiratory exercises, singing familiar songs, and vocal improvisation) or 12 weeks of receptive music therapy²⁹ (group music appreciation, song sharing and discussion, musical games, and music-assisted relaxation). The sessions lasted 1 hour, and participants attended on average 75% of sessions. Both interventions were facilitated by registered music therapists and have been described in previous publications.^{27,30} Music participation questionnaires were administered before and after the intervention period. Semi-structured, individual interviews were conducted by a research assistant after participation in the music therapy groups. We asked questions that aimed to capture general information about the experience of group

music therapy for participants, including what was liked and not liked, whether their appreciation or use of music changed as a result of their participation in the study, and what it was like to be part of a group, and specific information about the 2 types of music therapy intervention, such as their experience of singing or music-assisted relaxation. The interviews were audio-recorded using a digital mp3 recorder and ranged in length from 7 to 28 minutes. These recorded files were then transcribed into text files and checked against the original audio-recordings for accuracy; any transcription errors were corrected. A qualitative data management software program (MAXQDA) was used to manage and organize the data.

We conducted a thematic analysis to identify and examine any emergent themes from the interview data. We used Braun and Clarke's³¹ 6-phase guide to thematic analysis to ensure methodological rigor using an inductive approach to data analysis. Our intention was to provide a rich thematic description of the entire data set. We were guided by the following research question: "Given the physical restrictions imposed by quadriplegia on social participation and the subsequent risk for isolation and depression, what is it like for people with quadriplegia to participate in group music therapy?"

We read through the data set in its entirety several times prior to coding to ensure familiarization with the content and immersion in the data. This reading was done in an active way by searching for patterns and meaning, thus allowing the gradual shaping of ideas and development of patterns. We re-read the active intervention participant interview transcripts, generating initial codes and grouping these together where appropriate. Some segments of text were included in more than one code or theme. These codes were then reviewed and inspected for emerging patterns/themes and checked for variability and consistency. We identified themes at a semantic level within the explicit or surface meanings of the data without looking for anything beyond what a participant had said. This process was repeated with the receptive intervention participant interview transcripts. The final themes and subthemes were defined and named. The themes

Table 1. Participant characteristics

Characteristics	Median (range) or <i>n</i>
Age, years	43 (27-69)
Years since injury	9 (1-26)
Gender	
Male	15
Female	5
Neurological category	
C1-C4 AIS A, B, C	2 ^a
C5-C8 AIS A, B, C	17
T1-T5 AIS A, B, C	1 ^b

^aBoth C4A.

^bOne participant was recruited as C6B but on baseline assessment was classified as T1B.

were interpreted through repeated reading of the interview transcripts, reference to relevant literature, and consultation with colleagues. The interview transcripts were then re-read to recontextualize the data³² and determine whether the codes, themes, and subthemes developed were appropriate and relevant to the original data set. The process is based on the concept of grounding as developed by Glaser and Strauss.³³ Next, the interview transcripts were re-read and searched for relevant excerpts to describe the themes that had been generated; during this process, attention was paid to the identification of new themes. On completion of coding, the data were examined for differences and commonalities both within and across themes. The first author (J.T.) completed the initial analysis. The second author (F.B.) conducted an independent audit of the research process. She also reviewed and verified the categories and themes and generated new codes and/or themes if necessary.

Participant characteristics are presented in **Table 1**. The results of the musical participation questionnaire indicated that all participants rated music as important in their lives and listened to music daily prior to the study. Half had played an instrument and most sang rarely or occasionally when alone. Both groups increased the amount of time listening to music after participating in the study (both background music and active listening). Three participants from the music

appreciation group said that their music listening habits had also changed. They described listening to more music, listening to different songs, and looking for specific music rather than just what was readily available. The music appreciation group did not report any change in singing habits, however half of the singing group reported singing much more after the study and 2 participants joined community choirs.

Results of the Thematic Analysis

Twenty of the 24 study participants (10 from each group) agreed to be interviewed about their experience of group music therapy. In the initial analysis of these interviews, the singing group data set comprised 240 codes, which were organized into 6 main themes. For the music appreciation and relaxation group, 171 codes were collated into 4 main themes. The review process led the second author to change 2 codes, query some coding, and re-examine the text for relevance to the code. The second author added no new codes. The organization of the codes into main themes and subthemes was then reviewed and changed through discussion between the 2 authors (J.T. and F.B.). Four main themes were shared by the singing and music appreciation groups, and 2 additional themes were found for the singing group only (**Figure 1**). There was no difference in occurrence of themes when complete to incomplete or high to low level SCIs were compared.

Theme 1: Positive effect on mood and mental state (both groups)

On the whole, participants found the music therapy groups to be a positive and pleasurable experience that was beneficial and rewarding (**Table 2**). There was a predominantly positive effect on mood; people said they felt better afterwards and were happier and less frustrated. Participants found that the experience of singing together and learning techniques to sing better was rewarding and confidence building and inspired hope for the future. Participants from the music appreciation group discussed going deeper into the music and becoming more aware of the effect of music on their mood.

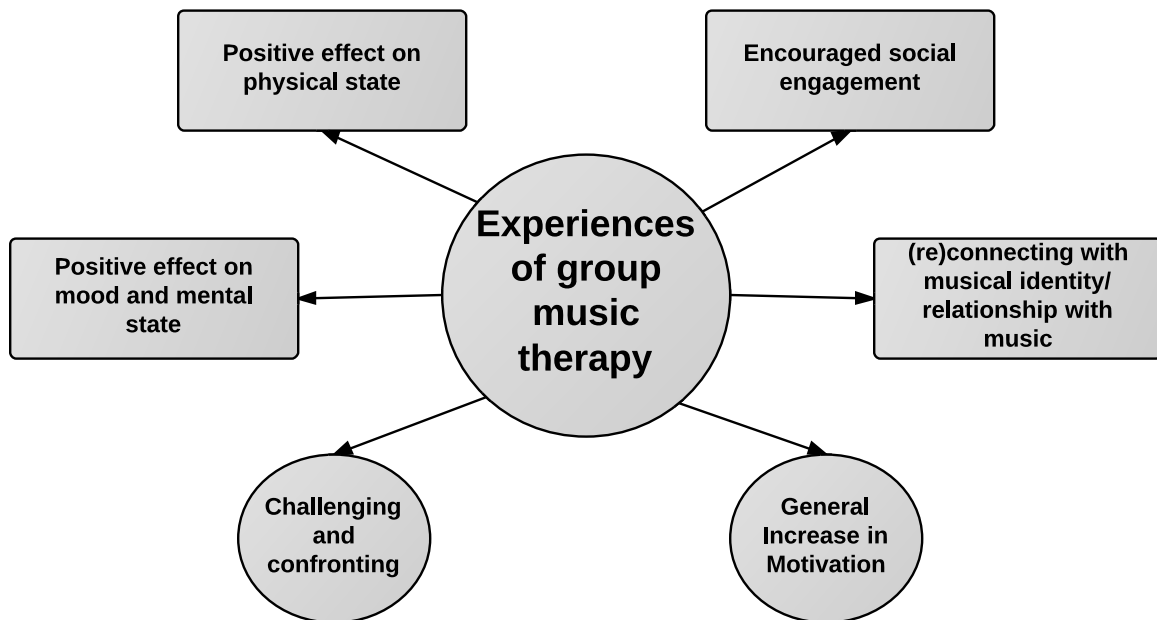


Figure 1. Main themes generated from the thematic analysis. Rectangle = theme shared by both groups; circle = singing group only.

Theme 2: Positive effect on physical state (both groups)

Energy levels were reported to change following participation in the music therapy groups; people felt more energized, alive, and awake (**Table 3**). They also described a relaxing and calming effect, particularly after the music-assisted relaxation at the end of the music appreciation groups; this was also reported to relieve pain and assist sleep. Many participants from the singing groups identified an increased vocal awareness in terms of their breathing, the sound of their voice, and vocal techniques to improve their voice. Many vocal changes were reported by singing participants. These included an improved ability to sustain a note or breath longer and improved ability to project and control their voice.

Theme 3: Encouraged social engagement (both groups)

Many participants indicated that the social interaction aspect of the groups was beneficial

and enjoyable (**Table 4**). The groups provided peer support and guidance for participants. The groups felt safe and comfortable for participants who reported a sense of belonging and inclusiveness. The concept of sharing was mentioned frequently, in terms of sharing music, sharing something personal, and listening to the stories shared by other group members.

Theme 4: (Re)connecting with musical identity/relationship with music (both groups)

Participants felt that the music therapy groups helped to reconnect them with their music and increase their awareness of the importance of music in their life (**Table 5**). The variety of songs and activities used was reported to expand participants' musical tastes and repertoire, musical sources, and musical knowledge. Some participants also suggested that there had been a change in the way that they used music as a result of participating in the program. They described a new understanding and use of music for therapeutic purposes at home,

Table 2. Theme 1: Positive effect on mood and mental state

Happier ^a	Participants felt happier after the groups.	<p>"There was plenty of times that I'd go in on the day feeling a bit dull and actually left after an hour feeling a lot better... I left there definitely more times a lot happier."</p> <p>"After the sessions my mood was generally more relaxed and happier."</p> <p>"The whole experience was always rewarding. I always felt better at the end of a session than I did when I started and I always looked forward to going to the next session... It was the enjoyment of the actual singing, but it was the high from singing; just the sheer pleasure of doing that... the increased well-being that you get from the singing... if I sing and I think I've sung well, it's very pleasing."</p>
More fulfilled ^b	<p>Participants found the experience of singing together pleasurable and fulfilling.</p> <p>Participants found song discussion beneficial and enjoyable.</p>	<p>"Emotionally [singing] makes you feel good, because it does feel the same as before [the accident]. It was always fulfilling."</p> <p>"[I enjoyed just listening to] different songs and having the words on paper... and discussing the music, what it means to you and how you play certain songs according to how you're feeling on that day."</p>
More confidence ^b	The experience of singing in the groups gave people an increased sense of confidence.	"Becoming a quad and all that from being an able body, you lose confidence in yourself and you feel that it's all finished, so [participating in the singing groups] has given me confidence, knowing that it is not finished."
More hopeful toward the future ^b	Participating in the singing groups gave hope for the future.	"It cheered me up, knowing that there is hope that my voice can improve: that I can sing again."
Increased sense of independence ^b	Participants developed insight in their capacity for independent activities.	"[Singing] is something I can participate in where I don't have to necessarily get someone to do something for me: as in getting assistance. I can do the exercises myself and the singing."

^aBoth groups.^bSinging group.

such as using music to modify mood and energy levels.

Theme 5: Challenging and confronting (singing group only)

Some parts of the experience of participating in the singing groups were challenging or confronting for participants (Table 6). It was described as a reality check, providing insight into voice issues and areas for improvement. Some participants were initially nervous about singing in front of other people. Even simply meeting in a group with other people with quadriplegia was confronting for some, because it was a reminder of disability. The singing groups were also reported to be vocally and physically challenging for some participants. Although this theme did not arise from the music

appreciation group data, it is conceivable that meeting with other people with quadriplegia and returning to the hospital where they had spent months in rehabilitation may also have been confronting for this group.

Theme 6: General increase in motivation (singing group only)

The experience of singing in the groups was motivating for participants on a number of levels (Table 7). First, it motivated community access and getting out of bed earlier. This is particularly relevant for people with quadriplegia, because simply getting out of bed and out of the house can often be onerous and difficult. Participation in the singing groups, and in particular singing familiar songs, also motivated some people to sing more

Table 3. Theme 2: Positive effect on physical state

More energized ^a	Some participants found that the singing groups energized them.	<p>"I feel much more alive. Enlivened and engaged with what I'm doing."</p> <p>"Sometimes before the singing, I'd feel sort of a little bit down and sleepy and stuff, but after the group, I'd feel renewed and more refreshed: ready to face the day."</p>
More relaxed/sleeping better ^a	<p>Many participants described a relaxing or calming effect of the music therapy groups.</p> <p>Some participants felt that they were sleeping better since participating in the study.</p>	<p>"I just felt... a lot more relaxed, calmer after, because we did some meditation at the end... Even on the sessions we didn't do any meditation I was probably a bit more relaxed... a little less stressed."</p> <p>"I've started sleeping a little bit better as well."</p> <p>"[The relaxation techniques] really helped me to go to sleep of a night, whereas before I'd have trouble."</p>
Positive effect on voice ^b	<p>Many singing group participants described improvements in their voice.</p> <p>Participants described a greater awareness of their voice and techniques to improve it.</p>	<p>I can actually feel that I can sing longer sentences. Where beforehand if I was singing a sentence I'd have to take three or four breaths, now I can almost take my breath halfway through... [and my] voice has got louder. People can hear me from the other room now."</p> <p>"I think about [my voice] more... like if I'm in a noisy situation or whatever you'd just do what you did, but now I actually think about what I do. I'm more aware of my voice."</p>
Experienced flow ^c	People described being "zoned into the music" and "floating on" or "sinking into" the music.	"Quite often I start listening to music, by the end of the relaxation I'd be unaware that the music was going on and I had been totally relaxed."
Relieved pain ^c	One participant experienced a reduction in pain while participating in the music-assisted relaxation.	"It made me so relaxed from some of the pain I had from my back. You forget about that and your stress."

^aBoth groups.

^bSinging group.

^cMusic appreciation and relaxation group.

Table 4. Theme 3: Encouraged social engagement

Safe to sing and share musical self ^a	The group was experienced as comfortable, safe, and inclusive.	<p>"It was inclusive, felt comfortable and everyone got equal time."</p> <p>"X read a poem that he'd written to music ages and ages ago. It was a huge step for him, to actually put something forward that was very personal for him. That was the first time he'd done that and he felt comfortable enough with us all to do that."</p>
Felt supported by group ^a	Participants enjoyed the social aspect of the groups and felt peer support from other group members due to their shared experience of spinal cord injury.	<p>"Talking to an 'able body' is completely different than talking to a quad so if you are having a down day and you're sitting next to another quad who is having a great day singing, well it makes you force yourself to pick yourself up a little bit."</p> <p>"[Talking to people in the groups] gave me insight into how other people coped in the same situation."</p>
Sense of belonging ^a	Participants described a sense of belonging and inclusiveness.	"It's a great way to have a bit of camaraderie and a feeling of group, a sense of being in a group or a community. I really felt I was part of the group... In fact it was actually almost quite sad on the last day, it was almost like leaving school or something."

^aBoth groups.

Table 5. Theme 4: Reconnected with musical identity/relationship with music

Renewed past/developed new musical interests/skills ^a	Participants described a renewed interest in music. No participant had previously received singing training.	"I usually just play my old favourites and I've actually delved back into a lot of my music that I hadn't listened to... it's opened up the doors to playing some of this older stuff."
Increased awareness of the importance of music in their life ^a	Participation in the music therapy groups prompted participants to examine their uses of music.	"[Participating in the music therapy groups has] made me realise how important music is in my life."
Expanded musical repertoire ^a	Participants enjoyed the variety of songs used and expanding their musical repertoire.	"I learned some more songs that I'd never heard: some much later songs that I never expected I would enjoy, but I did."
Expanded musical knowledge and sources ^b	Participants described a greater appreciation of a wide range of music and how to access music in different ways (including the Internet).	<p>"I found that when we started downloading YouTube clips that made it even more fun. And it was like, 'oh my goodness, there's a whole world out there that we didn't even realise we could tap into'"</p> <p>"[Participating in the music therapy groups] makes you think about how you use music, how you used it in the past, how you use it now and whether it needs change or changes. It also makes you realise what sort of music you enjoyed. For me, a lot of that music I enjoyed and I had not followed up</p>
Implemented therapeutic use of music at home ^b	Participants described a new and intentional use of music to modify mood or induce changes in energy.	<p>"I listen to [music] more in the mornings and stuff when I wake up. Or if I'm on a downer, before I used to drive down the beach, but now I just sit at home and listen to a bit more music and put the songs on which I know relax me."</p> <p>"I'm kind of doing it a little deeper than just listening to the music... I think I'm listening to a little more to the words in the song than I used to before. I kind of just liked songs for the melody or the beat and now I listen to the words a lot more."</p>

^aBoth groups.^bMusic appreciation and relaxation group.**Table 6.** Theme 5: Challenging and confronting

Stimulated feelings of loss ^a	The groups were confronting for some: a reminder of disability and loss of musical abilities due to SCI.	<p>"It was awful at first because I know how much I've lost... I could sing and to lose that was devastating."</p> <p>"I used to play musical instruments, which I can't do now, and I'm very bitter about that, not being able to do it. I thought about singing and I put it off and off and off."</p>
Vocally and physically challenging to sing ^a	Participants found singing difficult due to their spinal cord injury.	<p>"It was challenging to try and sing some of those exercises."</p> <p>"There was a few times that I'd actually physically go in there and leave a little bit sore with sort of spasms in the stomach and that was probably from using my voice, using more oxygen."</p>
Increased awareness of degree of vocal and physical disability ^a	The singing groups were described as a "reality check"; providing insight into voice issues.	"It's made me realise how bad I sing, and that I need to try and improve."
Initially anxiety-provoking to sing ^a	As novice singers, many participants were initially nervous about singing in public.	"[Singing in the group] was a bit nerve wracking at first."

^aSinging group.

Table 7. Theme 6: General increase in motivation

Increased motivation to get out of bed ^a	Participants found the commitment to group attendance motivating to get up earlier.	"It was sort of good to push yourself, coming in every week, even though I felt that usually I wouldn't get up early for things."
Increased motivation for community access ^a	Some participants reported a carryover of improved energy and mood into greater general motivation for other activities.	"It's a feeling of being energized, improved wellbeing, and improved wanting to do things... I'm much more interested in doing and participating in things and being with people than I have been... I'm going to the gym more often and walking my dog more."
Increased motivation for practicing singing at home ^a	Some participants found that participation in the singing groups motivated them to sing more outside the groups.	"This [experience] has definitely encouraged me now to seek help for another way of singing: to join a choir or even have some private lessons if I can."
Initially anxiety-provoking to sing ^a	As novice singers, many participants were initially nervous about singing in public.	"[Singing in the group] was a bit nerve wracking at first."

^aSinging group.

outside of the sessions. It is possible that music appreciation and relaxation were also motivating, although this theme did not arise from the music appreciation group data.

Discussion

Music therapy groups provided opportunities for community reintegration and for the development of self-confidence and social skills to facilitate increased independence. Social interaction and the peer support aspects of the groups were shared themes across the cohort. Being a part of a group provided social support and friendship, which are natural antidotes to feelings of isolation and depression. In addition, participants from both music therapy interventions experienced the groups as safe and inclusive. The creation of a social environment where a sense of belonging is felt is particularly important for this population with quadriplegia due to the high risk (and high incidence) of social isolation and depression.^{34,35} Depression can occur as a result of the SCI itself, but it is often compounded by secondary complications, which can further decrease mobility and opportunity for social engagement. The high level of physical impairment that results from a cervical SCI can significantly affect a person's

independence, and simple care needs can become very time consuming. Social connectedness and a sense of belonging are strong protective factors against suicide³⁶ and can be more protective among those with higher levels of depressive symptomatology.³⁷ Given the high incidence of depression following SCI, promoting social engagement for this population is considered particularly important.

The accessibility of singing was significant to participants. The physical limitations imposed by quadriplegia mean that independence in many areas of life is difficult. Physical impairment is the most commonly cited barrier to engaging in life activities.³⁸ There is a lack of accessible sporting or leisure outlets for people with cervical SCI due to the physical limitations associated with the injury. All of the music therapy interventions used in this study were accessible for people with quadriplegia, and the sessions motivated people to get out of the house to attend. This opportunity to participate in an activity that was not only enjoyable, but was also achievable independently from caregivers, was very liberating for participants.

The experience of both types of group music therapy intervention led to reports of positive effects on mood and mental state in terms of happiness, confidence, hope, and fulfilment.

These findings support theories of music and emotion^{39,40} and flourishing⁴¹ that suggest that music has a significant ability to affect emotions and can provide a resource for cultivating well-being and the flourishing of identity, relationship, and community.⁴² Further, significant physical effects of music therapy participation were reported, such as better sleep, decreased pain perception, improved voice projection, and more energized feelings. These findings support theories of music for pain management⁴³ and stimulating physiological arousal.^{26,39} Enjoyment of the sessions was also a key theme for both groups; this has significant implications for social and emotional outcomes of group music therapy for this population. It also speaks to the feasibility of the study in terms of acceptability of social music participation for people with quadriplegia.

As illustrated in **Table 4**, participants from both groups reported that the music therapy groups had reconnected them in some way to their own music, either through singing more or through exploring and listening to music more. Participants in the singing groups experienced the act of singing itself as enjoyable and intrinsically rewarding. Participation in the music appreciation and relaxation group renewed past musical interests and helped participants to get more out of their music collections. Participants described gaining a deeper awareness of the therapeutic value of music and a greater consciousness of the significance of music in their lives. This echoes findings from a recent qualitative study on participants' experience of the use of self-selected music in life⁴⁴ in which participants felt a greater self-awareness and consciousness of the significance of music in their lives and its fundamental link to health and quality of life. The empowering properties of song choice and active music listening described by Batt-Rawden et al⁴⁵ likely also played a role in group music therapy for people with SCI by engaging music as a health-promoting resource.

As none of the participants had received singing training prior to the study, it was not surprising that some of them found singing in the groups challenging and confronting. This was probably partly due to cultural views and ideas about singing and partly due to the experience

of singing with an acquired SCI. The use of live musical accompaniment in the sessions was also confronting at first for some participants who had played guitar prior to their injury and thus experienced feelings of loss. Even the prospect of meeting together with a group of peers with quadriplegia was daunting, particularly for those with a more recently acquired SCI as it required them to identify as part of the disabled community and reminded them of their time in rehabilitation. Attending the group sessions, which were held in the music therapy rooms at a rehabilitation hospital, was a hurdle for some participants who had not returned to the hospital since they had been discharged. In the words of one participant, "When I left the [hospital], I was really traumatised and I just could not go back there for a long, long time" [BS].

Singing was referred to as motivating by many participants. They were motivated to sing at home and attend the singing groups, and their motivation for community access and other activities (such as walking the dog and attending the gym) also improved. This has important implications for mental health and well-being on 2 levels. First, as discussed previously, social isolation is linked to depression following SCI. Second, physical exercise is increasingly being advocated as a means to maintain and enhance good mental health.⁴⁶⁻⁴⁸ Clift et al⁴⁹ also reported this effect: The regular commitment to attending rehearsals motivated participants to avoid being physically inactive. It has been suggested that this motivation effect could help to prevent or ameliorate psychomotor retardation, a common feature of depression.⁵⁰ Following involvement in the singing groups, several participants from the current study joined community choirs. The accessibility and enjoyment of singing thus promoted social engagement. This highlights the importance of singing itself for health and well-being, and the importance of social singing for promoting community integration and social connectedness. This theme has arisen in other music therapy research on the effects of group singing for stroke survivors with aphasia⁵¹ and people living with mental illness.⁵² Participation in community singing groups or choirs provides the opportunity

to re-connect with peers and the community and to regain the self-esteem and social skills that foster independence.

Participants from both groups felt that their program of music therapy had been more than a pleasant distraction and had changed the way they would use music in the future. In summary, group music therapy, using either active or receptive interventions, resulted in a range of encouraging outcomes for people with quadriplegia, including positive effects on mood, physical state, and social engagement.

Conclusion

Significant physical, psychological, and social benefits have been reported for people who choose to become involved in social music participation. Our results support previous findings that a sense of joy and accomplishment is gained from group singing,⁵³ along with stronger social and friendship networks, increased satisfaction with well-being and sense of safety within a community, and enhanced social capital through community participation.²⁰ These benefits are

particularly relevant to people with quadriplegia, in addition to many marginalized groups within the community, to encourage connectedness and community engagement and prevent the negative mental health outcomes associated with actual or perceived isolation. Our results suggest that social music participation, whether this involves active singing or intentional music listening, is accessible, enjoyable, beneficial, and motivating for people with quadriplegia.

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